the details of funds allocated during the Eleventh Five Year Plan; and

the step's taken by Government to promote solar energy in the country during the Eleventh Five Year Plan?

THE MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY (SHRI VILAS MUTTEMWAR): (a) No, Sir. The Ministry of'New and Renewable Energy supports Research, Design and Development (RD&D) activities in New and Renewable Energy including solar energy in the country. Comprehensive guidelines for supporting and accelerating pace of Research, Design and Development leading to eventual manufacture and deployment of various Renewable Energy Systems including solar energy have been put in place. In this regard, about 600 RD&D projects have been financially supported in the aforesaid technology areas.

Does not arise.

During the Tenth Five Year Plan period an expenditure of Rs. 72.65 crore has been incurred on research and development in New and Renewable Energy.

An amount of Rs. 600 crore has been tentatively allocated for Research, De0073ign and Development in New and Renewable Energy for the Eleventh Five Year Plan.

The Ministry has launched some new schemes in addition to implementation of ongoing schemes to encourage large scale use of solar energy in the country during the Eleventh Five Year Plan Period. The new schemes include 'Development of Solar. Cities' and 'Demonstration programme on MW size Grid Solar Power Generation'. In addition, Research and Development thrust areas for solar and other New and Renewable Energy Technologies for the Eleventh Five year Plan period have also been identified and publicized through newspaper and website advertisements for further intensifying research and technology development in this area. Promotional measures taken by the Government and other associated agencies include publicity and awareness campaigns, amendment of building bye-laws for making the use of solar water heaters mandatory in certain categories of buildings, rebate in property tax/electricity tariff to the users of solar water heaters, etc. In addition, various other types of fiscal and financial incentives are proposed to continue to be provided for promoting the use of various solar energy systems and devices in the country during the Eleventh Plan.

T&D losses of power

1796. SHRI MAHENDRA MOHAN: Will the Minister of POWER be pleased to state:

the estimated loss of electricity on account of theft, free power and cross subsidy;

the estimated rate of Transmission and Distribution (T&D) losses in the country during the last three years, and how it compares with that in other developed countries; and

what has been done to expand and upgrade Transmission and Distribution of electricity?

THE MINISTER OF POWER (SHRI SUSHIL KUMAR SHINDE): (a) and (b) In the earlier system of monitoring, utilities used to monitor Transmission and Distribution (T&D) losses. T&D losses were being computed taking into account electricity bills issued to consumers as accrued income and not on actual collection basis. T&D losses for the years 2003-04,2004-05 and 2005-06 were 32.53%, 31.25% and 30.42% respectively of the total energy available for sale. In that system there was a tendency of utilities booking distribution losses under subsidized/un-metered supply, thereby under reporting the former. The concept of Aggregate

Technical and Commercial (AT&C) losses was introduced in the year 2001-02. AT&C loss captures not only technical losses, but also theft, pilferages and commercial losses due to poor metering and billing and due to non-realisation of dues. The draft report on Performance of State Power Utilities for the years 2004-05 to 2006-07 prepared by the Power Finance Corporation indicates that the Aggregate Technical and Commercial (AT&C) Losses of the State Power Utilities at the national level for 2004-05,2005-06 and 2006-07 was 34.33%, 34.54% and 32.07% respectively of the total energy available for sale. T&D losses in some of the development countries (which are available for the year 2003) are given below:

Sl.No.	Name of the country	T&D losses (%)
1	Asusralia	15
2	Canada	6
3	France	6
4	United Kingdom	8
5	United States of America	7

SOURCE: World Bank Publication, World Development indicators, upto 2006.

(c) Electricity is a Concurrent subject and the responsibility of the sub-transmission and distribution segments rests with the States. However, the Central Government had launched the Accelerated Power Development and Reforms Programme in the year 2002-03 in order to reduce AT&C losses, improving quality of supply of power, increasing revenue collection and improving consumer satisfaction. Under the investment component of APDRP, financial assistance was given to the States as additional central assistance over and above the normal central plan allocation, for strengthening and upgradation of the sub-transmission and distribution system. It is proposed to introduce a restructured APDRP in the Eleventh Five year Plan in selected project areas with focus on establishing baseline data of AT&C loss and an automated energy accounting system, sanctioning projects for improvement of the distribution networks and for incentivising utilities which targeted achieve AT&C loss reduction.

Rural electrification

1797. SHRIMATI BRINDA KARAT: Will the Minister of POWER be pleased to state:

the number of villages electrified during the last three years, State-wise;

the number of house holds electrified under the rural electrification **programme,** so far; and

the number of households planned to be electrified **under the plan to electrify all the** villages?

THE MINISTER OF POWER (SHRI SUSHIL KUMAR SHINDE): (a) State-wise and year-wise number of villages electrified under RGGVY during the last three years is given in Statement (*See* below).

Implementing States have reported that 24,66,184 **rural households have been** electrified under Rajiv Gandhi Grameen Vidyutikaran Yojana as **on 3rd March, 2008.**

Government of India has **approved the continuation of the scheme in 11th Plan for** attaining the goal of providing access to electricity to all households. Electrification of **about** 1.15 lakh un-electrified villages and electricity connections to 2.34 crore **BPL** households by 2009 with a capital subsidy of Rs. 28000 crores has been approved at this stage.